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## A HYBRID TANAGER FROM MINNESOTA

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ON AUGUST 17, 1949, Dwain W. Warner, Dana Struthers, and I collected an oddly plumaged tanager (*Piranga*) 5 miles northwest of Wyoming, Anoka County, in east-central Minnesota. The specimen proved to be a male with a completely ossified skull. It weighed 32.0 grams and had some fat. Its testes measured about 2.00 x 0.75 mm. It was molting, the longest tail feathers extending scarcely a half inch beyond the tips of the fully developed upper tail coverts.

The accompanying plate illustrates the peculiar plumage, perhaps more effectively than a written description. The crown of the specimen is mottled with black-tipped greenish-yellow feathers and orange-red feathers. The rest of the head, hind neck, upper back, throat, and upper breast are less intense orange-red, with scattered yellow feathers. The middle of the back is mottled with yellowish-green, black, and orange-red. The rump, lower breast, and belly are largely yellow, with a few orange-red feathers interspersed. The flanks are greenish-yellow, and the tail coverts are reddish-orange. The feathers of the crural tract are black, tipped with greenish-yellow. The tail and wings are black, with greenish-yellow edges on some of the middle and greater secondary wing coverts.

At first sight, the bird appears to be an adult male Scarlet Tanager (*Piranga olivacea*) in postnuptial molt; however, it resembles the Western Tanager (*Piranga ludoviciana*) in several respects. First, the orange-red of the feathers is much closer to that on the throat and chin of the male Western Tanager than it is to the red of the normal male Scarlet Tanager. Exceptionally, however, the head and body plumage of the breeding male Scarlet Tanager is orange-red rather than scarlet. The scattering of red feathers over the body indicates the Scarlet Tanager since in the Western, the red occurs only on the head and (occasionally) some of the breast feathers. Second, in the Minnesota specimen, the well-defined greenish-yellow tips of three of the middle coverts form a single short wing-bar on either side. The Western Tanager has 2 conspicuous yellow wing-bars, while the Scarlet has them only very rarely. Third, the newly replaced outermost tertial of the specimen has a white tip (1.5 mm. wide). The Scarlet Tanager occasionally has a narrow, light edging on the inner secondaries, while the Western customarily has fairly broad edgings in fresh plumage which are about 1 to 2 mm. wide. In fresh plumage, the tail of the Western is white-tipped (always?), while this tipping is lacking in the Scarlet and in the specimen figured. Fourth, the middle of the back of the

Minnesota specimen is mottled with black. This black involves parts of some scapulars and interscapulars. On some of the interscapulars, there are two distinct black bars, separated by a band of orange-red or green. The entire middle of the back is black in both plumages of adult male Western Tanagers, and either red or green in the two plumages of adult male Scarlets, although a male Scarlet in the P. W. Shufeldt Collection, taken October 9, 1932, at Belize, British Honduras, has slight traces of black on some of the back feathers. A fifth point, more difficult to account for, is the black mottling on the crown of the Minnesota bird. In this regard, I can only point out that an adult male Western Tanager in the P. W. Shufeldt Collection from Mora County, New Mexico, September 24, 1939, has definitely black-tipped feathers on the crown, throat, and upper breast. Lastly, the bill of the Western Tanager tends to be slightly less swollen than that of the Scarlet Tanager. Ridgway (Birds of North and Middle America. Part 2. *U. S. Nat. Mus. Bull.* No. 50, 1902, pp. 89 and 93) gives the range of bill depth at base for 14 adult male Scarlet Tanagers as 8.9 to 9.7 mm. (average 9.4), and for 12 adult male Western Tanagers, 7.9 to 8.6 mm. (average 8.1). The bill depth of the Minnesota specimen is 8.1 mm.

I examined the red feathers of the head under a magnification of  $18\times$  to determine whether any of them belong to the incoming plumage, since the male Western Tanager retains some red on the head in winter, while the male Scarlet ordinarily loses all of the red feathers in the postnuptial molt. The new feathers on the specimen can readily be distinguished from the old on the basis of wear. As far as I can tell, all of the red feathers are badly worn, whereas all of the yellow head feathers and many of the yellow body feathers are fresh and unworn. This indicates that in full winter plumage this individual would have shown very little or no red. However, the presence of many badly worn yellow feathers on the body indicates that in full breeding plumage, this individual must have had a wholly red head, with a yellow- and red-mottled body.

A consideration of all the factors involved has led me to conclude that the Minnesota bird is a hybrid between the Western and Scarlet Tanager—the first known as far as I have been able to ascertain. Hybrids have been recorded between several other east-west allopatric species in North America. These hybrids provide additional evidence of the close relationship existing between their parent species.

Roberts (The Birds of Minnesota, Vol. 2. Second Edition. Minneapolis, 1936, p. 329) lists two May sight records for the Western Tanager at Minneapolis, about 35 miles southwest of the Anoka County locality of the specimen figured. He gives the status of the Scarlet Tanager in Minnesota as "summer resident, breeding throughout the state" (loc. cit.). The specimen discussed above is now in the collection of the Minnesota Museum of Natural History, University of Minnesota.